

CLAIMS

1. A light sensor comprising:

a light emitter;

a light receiver for receiving light emitted from said light emitter; and

a light guide for taking in the light emitted from the light emitter, reflecting the taken-in light at a reflection portion provided on a part thereof, and ejecting the light toward the light receiver,

wherein the light receiver and the light guide are disposed so as to be opposed to each other with an appropriate space in between, and entry of an object into said space is detected based on the light received by the light receiver.

2. The light sensor according to Claim 1, wherein the light guide in a plate shape, which has the reflection portion disposed on one plane thereof, takes in the light through one end face thereof, reflects the taken-in light at the reflection portion, and ejects the reflected light from the other plane thereof.

3. The light sensor according to Claim 2, wherein the reflection portion has a groove shape.

4. A light sensor comprising:

a light emitter;

a light receiver for receiving light emitted from said light emitter and reflected at a reflective object; and

a light guide for taking in the light emitted from the light emitter, reflecting the taken-in light at a reflection portion provided on a part thereof, and ejecting the light,

wherein the light receiver receives the light ejected from the light guide and reflected at the reflective object, and a position of said reflective object is detected based on the light received by the light receiver.

5. The light sensor according to Claim 4, wherein the light guide in a plate shape, which has the reflection portion disposed on one plane thereof, takes in the light through one end face thereof, reflects the taken-in light at the reflection portion, and ejects the reflected light from the other plane thereof.

6. The light sensor according to Claim 5, wherein the reflection portion has a groove shape.

7. A light sensor comprising:

a light emitter;

a light receiver for receiving light emitted from said light emitter; and

a light guide for taking in the light emitted from the light emitter, reflecting the taken-in light at a reflection portion provided

on a part thereof, and ejecting the light toward the light receiver,
wherein the light emitter and the light guide are disposed
so as to be opposed to each other with an appropriate space in
between, and entry of an object into said space is detected based on
the light received by the light receiver.

8. The light sensor according to Claim 7, wherein the light
guide in a plate shape, which has the reflection portion disposed on
one plane thereof, takes in the light through one end face thereof,
reflects the taken-in light at the reflection portion, and ejects the
reflected light from the other plane thereof.

9. The light sensor according to Claim 8, wherein the
reflection portion has a groove shape.

10. A light sensor comprising:
a light emitter;
a light receiver for receiving light emitted from said light
emitter;
a first light guide for taking in the light emitted from the
light emitter, reflecting the taken-in light at a first reflection
portion provided on a part thereof, and ejecting the light; and
a second light guide for taking in the light ejected from said
first guiding body, reflecting the taken-in light at a second reflection
portion provided on a part thereof, and ejecting the light toward the

light receiver,

wherein the first light guide and the second light guide are disposed so as to be opposed to each other with an appropriate space in between, and entry of an object into said space is detected based on the light received by the light receiver.

11. The light sensor according to Claim 10, wherein the first light guide in a plate shape, which has the first reflection portion disposed on one plane thereof, takes in the light through one end face thereof, reflects the taken-in light at the reflection portion, and ejects the reflected light from the other plane thereof.

12. The light sensor according to Claim 11, wherein the first reflection portion has a groove shape.

13. The light sensor according to Claim 12, wherein the second light guide in a plate shape, which has the second reflection portion disposed on one plane thereof, takes in the light through one end face thereof, reflects the taken-in light at the reflection portion, and ejects the reflected light from the other plane thereof.

14. The light sensor according to Claim 13, wherein the second reflection portion has a groove shape.

15. The light sensor according to Claim 10, wherein the

16. The light sensor according to Claim 15, wherein the second reflection portion has a groove shape.